## **IN THE CLAIMS**:



- 1. Apeptide having an amino acid sequence selected from the group consisting
- (a) H H \(\lambda\) R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) HAR \(\frac{1}{2}\); (portion of SEQ ID NO: 2, residues 292-295)
- (c) HARL (portion of SEQ ID NO: 2, residues 292-296)
- (d) HARLIX (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C\L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) THARLIL; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) ARL;
- (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
- (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: \( \frac{1}{2} \), residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) HARLIF; (portion of SEQ ID NO: 2\residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs

thereof.

- 3. A peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)
  - (a) LHARLCLANFCGRNRV;
  - (b) LARLCLANFCGNNNV;
  - (c) CARYRTGHHARLM;
  - (d) HHARLPLANFCG;
    - (e) RTGHHARLC\*LANFC;

- CESARYRTGHHARLC\*; (f)
- DNTHHARLIL; (g)
- SHHARLIL; and homologs thereof. (h)
- A peptide having the amino acid sequence A R L I (portion of SEQ ID NO: 2, 5. residues 47-50), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.
- A peptide having the amino acid sequence H A R L (portion of SEQ ID NO: 2, residues 292-295), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.
- 7. A peptide having the amino acid sequence F A R L (portion of SEQ ID NO: 2, residues 264-267), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

- 9. A peptide having the amino acid sequence A R L C (portion of SEQ ID NO: 2, residues 92-95), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.
- 11. A nucleic acid encoding an amino acid sequence selected from the group consisting of:
  - H H A R L; (portion of SEQ ID NO: 2, residues 291-295) (a)
  - H A R L; (portion of SEQ ID NO: 2, residues 292-295) (b)
  - HARLI; (portion of SEQ ID NO: 2, residues 292-296) (c)
  - HARLIL; (portion of SEQ ID NO: 2, residues 46-51) (d)
  - HHARLCL; (portion of SEQ ID NO: 2, residues 90-96) (e)
  - A R L I L; (portion of SEQ ID NO: 2, residues 47-51) (f)
  - HHARLIF; (portion of SEQ ID NO: 2, residues 291-297) (g)
  - T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51) (h)
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (j) ARL;
  - HARLCL; (portion of SEQ ID NO: 2, residues 91-96) (k)
    - **(l)** A R L C L; (portion of SEQ ID NO: 2, residues 92-96)

002.834198.1

ARCL; (SEQID NO: 12) (m)

- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- F A R L I L; (portion of SEQ ID NO: 2, residues 264-269) (o)
- FARLI; (portion of SEQ ID NO: 2, residues 264-268) (p)
- F A R L; (portion of SEQ ID NO: 2, residues 264-267) (q)
- HARLIF; (portion of SEQ ID NO: 2, residues 292-297) (r)
- A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of (s)

such amino acid sequences.

- 13. A nucleic acid encoding an amino acid sequence selected from the group
- consisting of:: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - LHARLCLANFCGRNRV; (a)
  - (b) LARLCLANFCGNNNV;
  - CARYRTGHHARLM; (c)
  - (d) HHARLPLANFCG;
  - RTGHHARLC\*LANFC; (e)
  - (f) CESARYRTGHHARLC\*;
  - DNTHHARLIL; (g)
  - S H H A R L I L; and homologs thereof. (h)
- 20. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:
  - H H A R L; (portion of SEQ ID NO: 2, residues 291-295) (a)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
  - HARLI; (portion of SEQ ID NO: 2, residues 292-296) (c)
  - (d) HARLIL; (portion of SEQ ID NO: 2, residues 46-51)
  - HHARLCL; (portion of SEQ ID NO: 2, residues 90-96) (e)
  - A R L I L; (portion of SEQ ID NO: 2, residues 47-51) (f)
  - H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297) (g)
  - T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51) (h)
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (j) ARL;
  - HARLCL; (portion of SEQ ID NO: 2, residues 91-96) (k)
    - **(1)** A R L C L; (portion of SEQ ID NO: 2, residues 92-96)

ARCL; (SEQIDNO: 12) (m) 002.834198.1

- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) FARLIL; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) HARLIF; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs thereof.
- 21. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)
  - (a) LHARLCLANFCGRNRV;
  - (b) LARLCLANFCGNNNV;
  - (c) CARYRTGHHARLM;
  - (d) HHARLPLANFCG;
  - (e) RTGHHARLC\*LANFC;
  - (f) CESARYRTGHHARLC\*;
  - (g) DNTHHARLIL;
  - (h) SHHARLIL; and homologs thereof.

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- 22. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:
  - (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
  - (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (d) A R L; and
  - (e) A R L C, (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

consisting of:

A mimetic of a peptide having an amino acid sequence selected from the group

- (a) H H A R L (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R
- (c) H \( \hat{R} \) R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A\R L I L; (portion of SEQ ID NO: 2, residues 46-51)

- HHARLCL; (portion of SEQ ID NO: 2, residues 90-96) (e)
- A R L I L; (portion of SEQ ID NO: 2, residues 47-51) (f)
- H\H A R L I F; (portion of SEQ ID NO: 2, residues 291-297) (g)
- T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51) (h)
- A R L I; (portion of SEQ ID NO: 2, residues 47-50) (i)
- A R L(i)
- HARLCL; (portion of SEQ ID NO: 2, residues 91-96) (k)
- A R L C\L; (portion of SEQ ID NO: 2, residues 92-96) (1)
- ARCL; (SEQ ID NO: 12) (m)
- M F A R L\(\) L; (portion of SEQ ID NO: 2, residues 263-269) (n)
- FARLIL; (portion of SEQ ID NO: 2, residues 264-269) (o)
- FARLI; (polition of SEQ ID NO: 2, residues 264-268) (p)
- F A R L; (portion of SEQ ID NO: 2, residues 264-267) (q)
- HARLIF; (portion of SEQ ID NO: 2, residues 292-297) (r)
- A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and (s)

homologs of such amino acid sequences.

- 24. A mimetic of a peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - LHARLCLANFCGRNRV; (a)
  - LARLCLANFCGNNNV; (b)
  - (c) CARYRTGHHARLM;
  - HHARLPLANFCG; (d)
  - (e) RTGHHARLC\*LANFC;
  - CESARYRTGHHARLC\*; (f)
  - DNTHHARLIL; (g)
  - SHHARLIL; and homologs thereof. (h)

A mimetic of a peptide having an amino acid sequence selected from the group 25. consisting of:

- A R L I; (portion of SEQ ID NO: 2, residues 47-50) (a)
- HARL; (portion of SEQ ID NO: 2, residues 91-94) (b)
  - FARL (portion of SEQ ID NO: 2, residues 264-267) (c)

(d) ARL, and

## (e) A R L\C; (SEQ ID NO: 12)

wherein the NTP peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

- 26. A method for purifying NTP from a biological sample comprising:
- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
  - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
  - (c) HARLI; (portion of SEQ ID NO: 2, residues 292-296)
  - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
  - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
  - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
  - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
  - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (i) ARL;
  - (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
  - (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
  - (m) A R C L; (SEQ ID NO: 12)
  - (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
  - (o) FARLIL; (portion of SEQ ID NO: 2, residues 264-269)
  - (p) FARLI; (portion of SEQ ID NO: 2, residues 264-268)
  - (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (r) HARLIF; (portion of SEQ ID NO: 2, residues 292-297)
  - (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

## homologs of such amino acid sequences;

- (2) isolating the resulting Harlil peptide/NTP conjugates; and
- (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.
- 27. A method for purifying NTP from a biological sample comprising:
- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11,

respectively, in order of appearance)

(a) LHARLCLANFCGRNRV;

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- (b) LARLCLANFCGNNNV;
- (c) CARYRTGHHARLM;
- (d) HHARLPLANFCG;
- (e) RTGHHARLC\*LANFC;
- (f) CESARYRTGHHARLC\*;
- (g) DNTHHARLIL;
- (h) SHHARLIL; and homologs thereof;
- (2) isolating the resulting Harlil peptide/NTP conjugates; and
- (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.
- 28. A method for purifying NTP from a biological sample comprising:
- (a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
  - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (iv) A R L; and
  - (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;

- (b) isolating the resulting Harlil peptide/NTP conjugates; and
- (c) separating NTP from the one or more Harlil peptides to obtain purified NTP.
- 29. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
  - (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
    - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
    - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
    - (c) HARLI; (portion of SEQ ID NO: 2, residues 292-296)
    - (d) HARLIL; (portion of SEQ ID NO: 2, residues 46-51)
    - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
    - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
    - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
      - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
      - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)

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- (j) ARL;
- (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
- (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) FARLIL; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) HARLIF; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

## homologs of such amino acid sequences;

- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.
- 30. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
  - (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
    - (a) LHARLCLANFCGRNRV;
    - (b) LARLCLANFCGNNNV;
    - (c) CARYRTGHHARLM;
    - (d) HHARLPLANFCG;
    - (e) RTGHHARLC\*LANFC;
    - (f) CESARYRTGHHARLC\*;
    - (g) DNTHHARLIL;
    - (h) SHHARLIL; and homologs thereof;
  - (2) determining the amount of NTP present in the sample; and
  - (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.



- 31. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
  - (a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
    - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
    - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
    - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
    - (iv) A R L; and
    - (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;

- (b) determining the amount of NTP present in the sample; and
- (c) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.
- 32. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
  - (1) one or more peptides having an amino acid sequence selected from the group consisting of:
    - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
    - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
    - (c) HARLI; (portion of SEQ ID NO: 2, residues 292-296)
    - (d) HARLIL; (portion of SEQ ID NO: 2, residues 46-51)
    - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
    - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
    - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
    - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
    - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
    - (i) ARL;
    - (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
    - (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
    - (m) A R C L; (SEQ ID NO: 12) (n) M F A R L I L; (portion of

SEQ ID NO: 2, residues 263-269)

- (o) FARLIL; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)

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- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences; and

- (2) suitable reagents.
- 33. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
  - (1) one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
    - (a) LHARLCLANFCGRNRV;
    - (b) LARLCLANFCGNNNV;
    - (c) C A R Y R T G H H A R L M;
    - (d) HHARLPLANFCG;
    - (e) RTGHHARLC\*LANFC;
    - (f) CESARYRTGHHARLC\*;
    - (g) DNTHHARLIL;
    - (h) SHHARLIL; and homologs thereof; and
  - (2) suitable reagents.
- 34. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
  - (a) one or more peptides having an amino acid sequence selected from the group consisting of:
    - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
    - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
    - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
    - (iv) HARLI; (portion of SEQ ID NO: 2, residues 292-296)
    - (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide; and

(b) suitable reagents.



- 35. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:
  - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
  - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
  - (d) HARLIL; (portion of SEQ ID NO: 2, residues 46-51)
  - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
  - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
  - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
  - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (j) ARL;
  - (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
  - (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
  - (m) A R C L; (SEQ ID NO: 12)
  - (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
  - (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
  - (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
  - (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.
- 36. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - (a) LHARLCLANFCGRNRV;
  - (b) LARLCLANFCGNNNV;
  - (c) CARYRTGHHARLM;
  - (d) HHARLPLANFCG;
  - (e) RTGHHARLC\*LANFC;
    - (f) CESARYRTGHHARLC\*;

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- (g) DNTHHARLIL;
- (h) SHHARLIL; and homologs thereof.
- 37. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:
  - (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (b) HARL; (portion of SEQ ID NO: 2, residues 91-94)
  - (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (d) A R L, and
  - (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

- 38. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:
  - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
  - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
  - (d) HARLIL; (portion of SEQ ID NO: 2, residues 46-51)
  - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
  - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
  - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
  - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (i) ARL;
  - (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
  - (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
  - (m) A R C L; (SEQ ID NO: 12)
  - (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
  - (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
  - (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
  - (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
    - (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)



- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.
- 39. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - (a) LHARLCLANFCGRNRV;
  - (b) LARLCLANFCGNNNV;
  - (c) CARYRTGHHARLM;
  - (d) HHARLPLANFCG;
  - (e) RTGHHARLC\*LANFC;
  - (f) CESARYRTGHHARLC\*;
  - (g) DNTHHARLIL;
  - (h) SHHARLIL; and homologs thereof.
- 40. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:
  - (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
  - (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (d) A R L, and
  - (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

- 41. A method of isolating immunoglobulins from a sample using a peptide comprising:
  - (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/ peptide interaction; and
- (2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:
  - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
  - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
    - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
    - (d) HARLIL; (portion of SEQ ID NO: 2, residues 46-51)

a<sup>12</sup> cont

- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (i) ARL;
- (k) HARLCL; (portion of SEQ ID NO: 2, residues 91-96)
- (1) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

- 45. A method of isolating immunoglobulins from a sample using a peptide comprising:
  - (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/peptide interaction; and
  - (2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:

(SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) LHARLCLANFCGRNRV;
- (b) LARLCLANFCGNNNV;
- (c) CARYRTGHHARLM;
- (d) HHARLPLANFCG;
- (e) RTGHHARLC\*LANFC;
- (f) CESARYRTGHHARLC\*;
- (g) DNTHHARLIL;
- (h) SHHARLIL; and homologs thereof.

